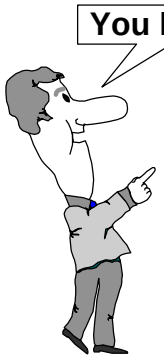
# Appendix D
## Hazardous Waste Information

## ✞ What is a Waste?




The material can no longer be used for its intended purpose. This includes old raw materials (expired or off-specification).

The material will be thrown away.

The material will be transported away from your facility to be recycled, incinerated, smeltered, or disposed.

## What is Hazardous Waste?

As a result of doing business, a company may generate wastes that can cause serious problems if not handled and disposed of carefully. Such wastes could:

**cause injury or death; or**
**damage or pollute land, air, or water**

These wastes are considered hazardous, and they are currently regulated by federal and state public health and environmental safety laws.

There are two ways a waste may be brought into the hazardous waste regulatory system: listing, and identification through characteristics.

**Listed Wastes:** Your waste is considered hazardous if it appears on any one of the 4 lists contained in RCRA regulations. These wastes have been listed because they either exhibit one of the characteristics described below or contain any number of toxic constituents that have been shown to be harmful to health and the environment.

**Characteristic Wastes:** Even if a waste does not appear on an EPA list, it is considered hazardous if it has one or more of these characteristics:

**Ignitable:** Easily combustible or flammable. Examples are paint wastes, certain degreasers, or solvents.

**Corrosive:** Causes damage to skin and dissolves metals and other materials. A liquid with a pH of 2.0 or less, or 12.5 or greater. Examples are waste acids, alkaline cleaners and waste battery acid.

**Reactive:** Unstable or undergoes rapid and violent chemical reaction with other materials. Examples include peroxides (and other oxidizers), waste bleaches, and cyanide.

**Toxic Substances:** (metals and pesticides) Materials that are considered as toxic to humans. A waste is TC hazardous if the TCLP (Toxicity Characteristic Leaching Procedure) exceeds the regulatory levels for any of the established 8 metals and 6 pesticides, and 25 new organic compounds.

The following substances are categorized as toxic:

| EPA # | Substance | Regulated Level (mg/L) | EPA # | Substance | Regulated Level (mg/L) |
|---|---|---|---|---|---|
| D004 | Arsenic | 5.0 | D011 | Silver | 5.0 |
| D005 | Barium | 100.0 | D012 | Endrin | 0.02 |
| D006 | Cadmium | 1.0 | D013 | Lindane | 0.4 |
| D007 | Chromium | 5.0 | D014 | Methoxychlor | 10.0 |
| D008 | Lead | 5.0 | D015 | Toxaphene | 0.5 |
| D009 | Mercury | 0.2 | D016 | 2,4-D | 10.0 |
| D010 | Selenium | 1.0 | D017 | 2,4,5-TPSilvex | 1.0 |

*Other regulated toxic organic compounds:*

Benzene
Carbon Tetrachloride
o-Cresol
1,2-Dichloroethane
Heptachlor (& hydroxide)
Hexachloroethane
Pentachlorophenol
2,4,5-Trichlorophenol
Vinyl Chloride
Chlordane
Chlorobenzene
p-Cresol
1,1-Dichloroethylene
Hexachlor-1,3-Butadiene
Methyl Ethyl Ketone
Pyradine
Trichloroethylene
Chloroform
m-Cresol
1,4-Dichlorobenzene
2,4-Dinitrotoluene
Hexachlorobenzene
Nitrobenzene
Tetrachloroethylene
2,4,6-Trichlorophenol

*Selected Toxic Wastes Regulated by 40 CFR 261.33*

Please refer to 40CFR 261 Subpart D for complete lists of hazardous wastes.

Acetaldehyde
Acetone
Benzene (aka: carbon oil, coal naptha, mineral naptha)
para-Benzoquinone
n-Butyl alcohol
Carbon tetrachloride
Chloroform (aka: methyl trichloride, trichloroform)
Creosote
Cyclohexane
Cyclohexanone (hexanone, pimelic ketone)
Dibutyl phthalate
ortho-dichlorobenzene
para-dichlorobenzene
Dichloroethylene
Diethylhexyl phthalate
Diethyl phthalate (solvanol)
Dimethyl phthalate (DMP, ENT 262, solvarone)
Di-n-octyl phthalate
para-Dioxane
2-Ethoxyethanol Ethyl acetate (acetic ether, Poly-Solv TE)
Ethylene dichloride (Dutch Oil, EDC, ENT 1,656)
Ethylene glycol monoethyl ether
Ethylene glycol (lutrol-9, MEG, magrogol, Dowtherm)
monomethyl ether
Ethylene oxide (oxirane, oxyfume, T-gas)
Ethyl ether
Formaldehyde
Formic acid (aminic acid, hydrogen carboxylic acid)
Freons
Hydrofluoric acid
Hydrogen sulfide
Isobutyl alcohol (isobutonol)
Mercury
Methyl alcohol (colonial spirit, columbian spirits, wood alcohol, wood naptha)
Methyl bromide (MBX)
Methylene dichloride
Methyl chloroform
Methyl ethyl ketone (MEK) peroxide
Methyl isobutyl ketone
Methyl methacrylate
Naphthalene (camphor tar, white tar)
Pentachlorophenol
Perchloroethylene
Phenol
Resorcinol
Selenious acid
Selenium dioxide
Selenium sulfide
Tetrahydrofuran
Thiourea
Toluene
Toluene diisocyanate
1,1,1-Trichloroethane
Trichloroethylene
Xylene

Waste generators must determine the levels of the above substances (where suspected) in their waste. This is based on the generators knowledge of the process and materials used or by the application of the Toxicity Characteristic Leaching Procedure (TCLP).

Your facility and industry may generate other hazardous wastes beyond the examples mentioned above. **It is your responsibility to determine whether your wastes are hazardous.** If you need assistance, call one of the sources listed in appendix A.

**Acutely Hazardous Waste:** These are wastes the EPA has determined to be dangerous in small amounts and are regulated in small amounts similar to large amounts of hazardous wastes. For example, acutely hazardous wastes may be generated using pesticides or a metal plating process. The key to acutely hazardous wastes is that the material must have been used in a facility process or the material must be declared off-specification (a material no longer provided to industry by the supplier). If your facility generates more than 1 kg (2.2 pounds) or stores more than this amount in one calendar month you are subject to the regulations applying to a Large Quantity Generator.

## The Mixture Rule:

If you mix 100 gallons of a known hazardous waste with 100 gallons of a nonhazardous waste what do you end up with?

A. 200 gallons nonhazardous waste, or
B. 200 gallons listed hazardous waste


The correct answer is B. **Mixing even a small quantity of hazardous waste with non-hazardous waste causes the entire volume of waste to be classified as hazardous.** You have increased your disposal cost and are now paying for the disposal of what was once a non-hazardous waste. Also, dilution of characteristic hazardous waste to make it non-hazardous is considered treatment and is subject to regulatory requirements.

**Other Issues Affecting Hazardous Waste Generation:**

If you use a sorbent or other spill containment material to clean-up a hazardous waste spill, the containment and spill clean-up material are considered a hazardous waste.

If you use rags, Q-tips, or other applicators to apply hazardous materials, all these applicators are considered hazardous wastes.

If you rinse containers that held hazardous waste, the rinse water is considered hazardous.

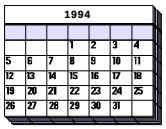
If you use a degreaser containing a solvent classified as hazardous the sludge and associated materials are considered hazardous.

If you spill hazardous waste on soil, the soil is considered a hazardous waste.

## Determine Your Monthly Waste Generation & Accumulation Rates:

Good record keeping will make the calculations easier. Remember that the generation and accumulation rates must be calculated for each facility location (site) - do not combine wastes from several separate sites.

**1. Every calendar month, total all hazardous wastes that you:**




Accumulate on-site for any period of time prior to subsequent management.
Package and transport off-site.
Place directly in a regulated on-site treatment or disposal unit.
Generate as byproducts and remove from the product storage tanks.

**Don't Count wastes that:**

Are specifically exempted from counting. For example, silver scrap that will be sent off-site for reclamation, or used compressor oil that has not been mixed with hazardous waste (solvents, acids, etc.)

May be left in the bottom of containers that have been completely emptied through conventional means (pouring or pumping). Containers that held acutely hazardous wastes must be thoroughly cleaned.

Are left as residue in the bottom of product storage tanks, if the residue is not removed from the product tank.

You reclaim continuously on-site without storing the waste prior to reclamation, such as batch or continuous flow silver recovery equipment. You do have to count any residue removed from the equipment and any spent cartridge filters (cartridge cores being sent for recycling).

You use an elementary neutralization unit, a totally enclosed treatment unit, or a wastewater treatment unit. An elementary neutralization unit is a regulated tank, container, or transport vehicle (including ships) which is designed to contain and neutralize corrosive wastes.

Are discharged directly to a publicly owned treatment works (POTW) without being stored or accumulated first. This discharge to a POTW must comply with the requirements of the Clean Water Act and local regulations. POTWs are public utilities that treat domestic sewage and some industrial wastes. The City of Albuquerque's POTW is a domestic sewage treatment plant.

You have already counted once during the calendar month, and treated on-site or reclaimed in some manner and used again.

For on-site recycling, calculate the amount of waste generated once per month. For example, you generate 5 gallons of solvent in week one, out of which you recover and reuse 4-1/2 gallons as recycled product and have ½ gallon as waste. Your waste generation for week one is 5 gallons. In week two, you add ½ gallon of virgin acid to the 4-1/2 gallons of recycled acid and then use and recycle the refreshed 5 gallons. Waste generation for week two is ½ gallon - the ½ gallon of virgin acid added to the recycled acid. If instead you dispose the five gallons every week, you waste generation per week is 5 gallons solvent per week. The waste generated is the material that has been used in a process. Since the original amount that was used in-process was 5 gallons, waste generated for week one is 5

gallons. For week 2 only ½ gallon was used in-process, therefore waste generated for week 2 is only ½ gallon. For off-site recycling, calculate the total amount of waste generated that was sent for recycling each month.

**2. Convert all measurements to pounds.**

To make accurate calculations use the following steps:

Gallons to Pounds - One way to accurately convert gallons to pounds is to weigh the generated waste material.

Weigh an empty one gallon container.

Fill the container with 1 gallon of the waste material.

Weigh the filled container.

Subtract the weight of the container from the filled container weight, and you'll know the weight of one gallon of the material in question.

This must be done for each separate type of hazardous waste. You could also have a lab determine the density of your wastes.

**3. Subtract all the excluded wastes in pounds.**

**4. Calculate total weight of hazardous waste generated for the month.**

You should now be able to determine your waste generator category.

**Categories of Hazardous Waste Generators:**

| **Amount of Hazardous Waste Generated** | **Category** |
|---|---|
| No More Than 100 kg/month (220 pounds) | Conditionally Exempt Generator (CESQG) |
| 100-1,000 kg/month (220-2,200 pounds) | Small Quantity Generator (SQG) |
| More Than 1,000 kg/month (2,200 pounds) | Large Quantity Generator (LQG) |

**Conditionally Exempt Small Quantity Generator (CESQG)**

If your facility generates no more than 100 kilograms (220 lbs) of hazardous waste and no more than 1 kg (2.2 lbs) of acutely hazardous waste in any calendar month, you are a conditionally exempt small

quantity generator and the federal hazardous waste laws require you to:

Identify all hazardous wastes you generate.

Send your waste (via an approved waste hauler) to a hazardous waste facility, authorized landfill, or other facility approved by the state. If the material is for reclamation or recycling you may transport the material to the reclaimer/recycler in the proper containers.

Never accumulate more than 1,000 kg (2,200 lbs) of hazardous waste on your property. If you do you become subject to all the requirements applicable to the 100-1,000 kg/month generators.

### Small Quantity Generator (SQG) - 100-1,000 kg/month Generator

If your facility generates more than 100 but less than 1,000 kg (220 to 2,200 lbs) of hazardous waste and no more than 1 kg (2.2 lbs) of acutely hazardous waste in one calendar month you are considered a Small Quantity Generator (SQG), and are subject to the federal waste laws that require you to:

Determine your hazardous wastes and which are subject to regulation.

Obtain an EPA Identification Number.

Store wastes in accordance with the proper management of containers.

Package, mark and label wastes in accordance with the US Department of Transportation's (DOT) hazardous materials transport requirements.

Use a State of New Mexico licensed hazardous waste transporter and fill out a hazardous waste manifest (important for you business records).

Properly recycle, treat, store, and dispose of your waste at a hazardous waste facility approved to accept hazardous wastes.

Establish emergency procedures for responding to environmental emergencies such as leaks, spills and fires involving hazardous waste.

Meet record keeping and reporting requirements.

Submit an annual report on your waste management activities to the necessary state agency.

If you become a LQG comply with the LQG requirements.

### Large Quantity Generator (LQG) - Generator of 1,000 kg/month or More (LQG)

If you generate 1,000 kg or more (2,200 lbs) or more of hazardous waste, or more than 1 kg of acutely hazardous waste in any one calendar month you are a Large Quantity Generator (LQG) and the federal hazardous waste laws require you to:

Comply with all applicable hazardous waste management rules.

The following table summarizes the requirements of the generator categories.

**Table F1. Requirements of Hazardous Waste Generator Categories**

| Status | EPA No. | Notify | Manifest | Annual Report |
|---|---|---|---|---|
| **CESQG-Acute**<br>generate < 1kg<br>Store < 1kg | NO | NO | NO | NO |
| **CESQG**<br>generate < 100kg<br>Store < 1000kg | NO | NO | NO | NO* |
| **SQG**<br>generate < 100-1000kg<br>Store < 6000kg | YES | YES | YES | YES |
| **LQG**<br>generate > 1000kg<br>Store < 90 days | YES | YES | YES | YES |
| **LQG-Acute**<br>generate > 1kg<br>Store > 1kg | YES | YES | YES | YES |

* annual report is required if CESQG does on-site treatment, disposal or recycling.

### Changing Generator Categories:

Under the federal hazardous waste management system, you may be regulated under different rules at different times, depending on the amount of hazardous waste you generate in a given month. For example, if in June, you generate 100 kg (220 lbs) or less of hazardous waste, you would be a conditionally exempt small quantity generator (CESQG) for the month of June.

If, in July, your hazardous wastes total 100 kg but less than 1,000 kg, your status changes to a small quantity generator (SQG) and your July hazardous wastes would be subject to the regulations and requirements for this level of hazardous waste generator. Then, if in September, you generate 1,000 kg or more of hazardous waste, your September hazardous waste generated would be subject to all the requirements of a large quantity generator (LQG), including any previous months waste that was mixed with the September wastes.

If, after totaling your wastes, you have determined that you never generate more than 100 kg/month of

hazardous waste, you need not read the rest of this section.

**But, as a CESQG, you must:**


Identify your hazardous wastes.

Dispose of those wastes at an approved facility by methods approved by the state for industrial or municipal wastes.

Never accumulate more than 1,000 kg (2,200 lbs) of hazardous waste at your facility. If you do you become subject to all the requirements of a Small Quantity Generator.

However, if you do generate between 100 kg and 1,000 kg of hazardous waste within one month, the remainder of this appendix will attempt to explain and clarify what you must do to handle your wastes safely and legally.

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**Obtaining a U.S. EPA Identification Number:**

1. If your business generates more than 100 kg of hazardous waste in any given calendar month, you will need to obtain a U.S. EPA Identification Number.
2. Transporters and facilities that store, treat, or dispose of regulated quantities of hazardous waste must also have U.S. EPA Identification Numbers.
3. These twelve-character identification numbers used by EPA and states are part of a national data base on hazardous waste activities.

The three most important things you should know about obtaining your EPA ID number are:

1. Call your state agency or EPA regional office to get a notification form.
2. Fill out the form(s), one for each site and facility, and sign.
3. Send the form to the hazardous waste contact in New Mexico.

This information covers your "installation" (your business site) and your hazardous wastes. To complete the form, you need to identify your hazardous waste by the EPA hazardous waste number. Contact the Albuquerque Hazardous Waste Program or a private consultant for assistance in identifying your wastes and in completing the necessary forms.

Complete one copy of the form for each of your plant sites or business locations where you generate or handle hazardous wastes. Each site or location will receive its own U.S. EPA Identification Number.

Make sure your form is filled out completely and correctly and sign the certification. Send the form to your state hazardous waste contact. This address is listed in the information booklet you received with the form. The information will be recorded by EPA and the state, and you will be assigned a U.S. EPA Identification Number. This number will be unique to the your site(s). Use this number on all hazardous waste shipping

papers.

The U.S. EPA Identification Number will stay with the business site or location. If your business moves to another location, you must notify EPA or the state of the move and submit a new form. If hazardous waste was previously handled at the new location, and it already has a U.S. EPA Identification Number, that number will be assigned for the site after you have notified EPA.

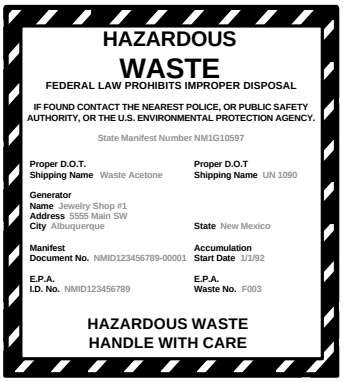
HAZARDOUS
WASTE
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
IF FOUND CONTACT THE NEAREST POLICE, OR PUBLIC SAFETY AUTHORITY, OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.
State Manifest Number NM1G10597
Proper D.O.T. Shipping Name Waste Acetone
Proper D.O.T Shipping Name UN 1090
Generator Name Jewelry Shop #1 Address 5555 Main SW City Albuquerque State New Mexico
Manifest Document No. NMID123456789-00001
Accumulation Start Date 1/1/92
E.P.A. I.D. No. NMID123456789
E.P.A. Waste No. F003
HAZARDOUS WASTE
HANDLE WITH CARE

***Figure F1. Example of Proper Hazardous Waste Container Label***

## Managing Hazardous Waste:

### On-Site:

Three important things you should know about managing your hazardous wastes on-site are:

1. Comply with storage time, quantity, and handling requirements for containers and tanks.
2. Obtain a storage, treatment, or disposal permit if you store, treat, or dispose of your hazardous waste on-site in a manner requiring a permit.
3. Take adequate precautions to prevent accidents, and be prepared to handle them properly in the event that they do occur.

### Storing On-Site:

You may store no more than 6,000 kg of hazardous waste on your site for up to 90 days, or for up to 270 days if the waste must be shipped to a treatment, storage, or disposal facility that is located over 200 miles away. If you exceed these time or quantity limits, you are considered a storage facility and you must obtain a storage permit and meet all of the RCRA storage requirements. These time limits on storage are longer than the 90 days allowed generators of 1,000 kg/mo or more. You are allowed to store your waste for as long as 180 or 270 days so that you will have time to accumulate enough hazardous waste to be treated or disposed of economically.

You can store hazardous waste in 55-gallon drums, tanks, or other containers suitable for the type of waste if you follow certain common sense rules that are meant to protect human health and the environment, and reduce the possibility of damages or injuries caused by leaks or spills.

If you store your hazardous waste in containers:

Residues of hazardous waste in empty containers that previously contained hazardous waste are exempt from hazardous waste regulation and can be managed as nonhazardous waste. A container is empty if all wastes have been removed using common methods for that type of container (e.g. pumping or pouring).

The container must also have:

Less than one inch of waste remaining; or
3% or less by weight of waste remaining if the container holds 110 gallons or less; or
0.3% or less by weight of waste remaining if the container holds more than 110 gallons.

Containers that hold acutely hazardous waste must be triple rinsed to be considered empty. Rinsewater from the cleaning of the containers is regulated as hazardous waste if it has any of the hazardous waste characteristics.

Provide secondary containment to prevent accidental discharge to the sewer system or storm water drains.

Clearly mark each container with the words "HAZARDOUS WASTE" (see Figure F1 and F2), with the date you began to collect waste in that container.

Replace leaking containers, keep in good condition, and handle carefully.

Do not store hazardous waste in a container that may rupture, leak, corrode, or otherwise fail.

Keep containers closed except when you fill or empty them.

Inspect the containers for leaks or corrosion every week.

When storing ignitable or reactive wastes, containers should be stored, covered, as far as possible from the site property line to create a buffer zone.

NEVER store wastes in the same container that could react together to cause fires, leaks, or other releases.

Outside storage must be covered to prevent storm water pollution.

Make sure that the stored waste is taken off-site or treated on-site within 180 (or 270) days.

**NOTE:** Many haulers and disposal facilities require labeling identifying the Health, Flammability and reactivity ratings plus personal protection codes. NFPA or HMIS labels are acceptable.

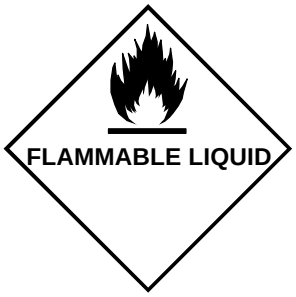


***Figure F2. Example of DOT Labels***

If you store waste in tanks, you must follow similar common sense rules:

Do not store hazardous waste in a tank that may rupture, leak, or corrode, or otherwise fail.

Keep a tank covered or provide at least two feet of freeboard (space at the top of the tank) in uncovered tanks.

If tanks have equipment allowing waste to enter continuously, provide cutoffs or bypass systems to stop/divert the flow in case of problems.

Inspect any monitoring or gauging systems on each operating day. Inspect the tanks for leaks or corrosion every week.

Use the National Fire Protection Association's (NFPA) buffer zone requirements for tanks containing ignitable or reactive wastes. These requirements specify distances considered as safe buffer zones for various liquids based on all combustible and flammable liquid characteristics.

Call Hazmat or EPA regional office (see Appendix B) for assistance.

Remove off-site or treat on-site stored wastes within 180 (or 270) days.

**Disposing of Hazardous Waste On-Site:**

You may not dispose of your hazardous waste on your site unless you have obtained a disposal permit as described below. Under certain circumstances, it may be legal to dispose of certain types of hazardous waste on your site without a permit: Farmers may dispose of their own waste pesticide provided they triple rinse the empty pesticide container and dispose of the pesticide residue on their own farm in a manner consistent with the instructions on the pesticide label. Even if you are not a farmer, you may be allowed to dispose of certain hazardous wastes by discharging them directly into your sewer drain. However, this is not considered good management practice and in many communities it may be illegal. For more information concerning wastes which may be disposed of in this manner, contact your local wastewater or sewage treatment office or your state hazardous waste management agency (see Appendix B).

**Treating Hazardous Waste On-Site:**

You may treat all wastes on your site without a special permit providing:

You treat the accumulated hazardous waste within 180 (or 270) days.
You comply with the container and tank regulations described above.
You take steps to prepare for and prevent accidents as described below.

If you do not meet each requirement but treat your hazardous wastes on-site, you must obtain a hazardous waste treatment permit as described below.

**Obtaining a Permit to Store, Treat, or Dispose of On-Site:**

If you store, treat, or dispose of your hazardous waste on-site in any manner other than those permissible ones described above, you must obtain a permit. Obtaining a permit to store, treat, or dispose of your hazardous wastes on your site can be a costly and time consuming process. The process is described in Title 40 of the Code of Federal Regulations (40 CFR) Part 270. To obtain such a permit you must:

Notify EPA or your state of your hazardous waste activity.
Complete Part A of the Permit application.
Comply with the interim status standards as described in 40 CFR Part 265.
Complete Part B of the permit application.
Comply with the standards described in 40 CFR Parts 264 and 266.

If you are not sure whether you need such a permit, or if you are interested in finding out more about it, call your state hazardous waste management agency or EPA regional office (see Appendix B) for help.

**Shipping Hazardous Waste Off-Site:**

Three important things you should remember about shipping your hazardous waste off-site are:

1. Choose a hauler and facility which have EPA identification numbers.
2. Package and label your wastes for shipping.
3. Prepare a hazardous waste manifest.

Under federal regulations, if you are a 100-1,000 kg/mo generator, you are allowed to accumulate your hazardous wastes on your premises without a permit for up to 180 days (or 270 days if you must ship it more than 200 miles) as long as you never accumulate more than 6,000 kg (13,200 lbs). These limits are set so that a small business can accumulate enough waste to make shipping and disposal more economical.

**Choosing a Hazardous Waste Hauler and a Waste Management Facility:**

Carefully choosing a hauler and designating a waste management facility is important. The hauler will be handling your wastes beyond your control while you are still responsible for their proper management. Similarly, the waste management facility will be the final destination of your hazardous waste for treatment, storage, or disposal. Before choosing a hauler or designating a facility, check with the following sources:


Your friends and colleagues in business who may have used a specific hazardous waste hauler or designated facility in the past.

Your trade association(s) which may keep a file on companies that handle hazardous wastes.

Your Better Business Bureau or Chamber of Commerce to find out if any complaints have been registered against a hauler or facility.

Your state hazardous waste management agency or EPA regional office, will be able to tell you whether a company has a U.S. EPA Identification Number, and may know whether the company has had any problems.

After checking sources, contact the hauler and designated hazardous waste management facility directly to verify that they have U.S. EPA Identification Numbers, and that they can and will handle your waste. Also, make sure that they have the necessary permits and insurance, and that the hauler's vehicles are in good condition and meet all requirements of the Department of Transportation (DOT). Checking sources and choosing a hauler and designated facility may take some time - try to begin checking ahead of the time you will need to ship your waste.

**Preparing Your Hazardous Wastes for Shipment:**

When you prepare hazardous wastes for shipment, you must put the wastes in containers acceptable for transportation and make sure that containers are properly labeled. Your hauler should be able to assist you. If you need additional information, you may wish to consult the requirements for packaging and labeling hazardous wastes found in the Department of Transportation (DOT) regulations (49 CFR Part 172). To find out what these requirements are for your wastes, you should contact your state hazardous waste management agency for the name and telephone number of your state transportation agency. Your state transportation agency, your hauler, or your designated facility can help you understand the DOT requirements.

**The Uniform Hazardous Waste Manifest:**

A hazardous waste manifest is a multi-copy shipping document that you must fill out and use to accompany your hazardous waste shipments. You should receive a copy (#8) when the material is picked up and the designated disposal facility should send copy #3 back to you within 30 days.

The manifest form is designed so that shipments of hazardous waste can be tracked from their point of generation to their final destination - the so-called "cradle-to-grave" system. The hazardous waste generator, the hauler, and the designated facility must each sign this document and keep a copy. The designated facility operator must send a copy (#3) back to you, so that you can be sure that your shipment arrived. You must keep this copy (#3) along with copy #8, which should be signed by the hauler and designated facility, on file for three years (if not indefinitely).

**NOTE:** It is recommended that all hazardous waste documents are kept for an indefinite period to provide necessary documentation if the need should ever arise in a Superfund cleanup litigation.

If you do not receive a signed copy from the designated hazardous waste management facility within 30 days, it is a good idea for you to find out why and, if necessary, let the state or EPA know. You do not need a manifest for non-hazardous wastes.

**REMEMBER:** Just because you have shipped the hazardous waste off your site and it is no longer in your possession, your liability has not ended. You are potentially liable under Superfund for any mis-management of <u>your</u> hazardous waste The manifest will help you to track your waste

during shipment and make sure it arrives at the proper destination.

You can obtain blank copies of the manifest from several sources. To determine which source you should use, use this system:

1. If the state to which you are shipping your waste has its own manifest, use that manifest form. Contact that state's hazardous waste management agency (see Appendix B), your hauler, or the designated facility.

2. If the state to which you are shipping your waste does not have its own manifest, use the manifest of the state from where the waste was generated. Ask the hauler or the state agency for blank forms.

3 If neither state requires a state-specific manifest, you may use the "general" Uniform Hazardous Waste Manifest-EPA Form 8700-22.

When you sign the certification you are personally confirming that:

The manifest is complete and accurately describes the shipment.
The shipment is ready for transport.
Given your budget, your waste management arrangements are the best to reduce the amount and hazardous nature of your wastes.

States, haulers, recyclers, and designated facilities may require additional information. Your hazardous waste hauler will often be the best source for information and will help complete the manifest. EPA has also prepared some industry-specific information to help you complete the manifest. This industry-specific information is available from EPA Regional Offices and a number of trade associations. If you have trouble obtaining, filling out, or using the manifest, ask your hauler, facility operator, or the contacts listed in Appendix A for help.

Federal regulations allow you to haul your hazardous waste to a designated facility yourself. You must, however, obtain an EPA transporter ID number and comply with applicable DOT requirements. There are also financial responsibility and liability requirements under the Federal Motor Carrier Act, but you may be exempt from these if you:

1. Use a vehicle with a Gross Vehicle Weight Rating of less than 10,000 pounds (van or pick-up truck).
2. Transport your wastes for commerce within your state in non-bulk shipments (i.e. containers with capacities of less than 3,500 gallons).
3. Transport hazardous wastes which meet the "limited quantity exclusion" requirements of Section 172.101 of the DOT regulations.

**REMEMBER:** If you do transport your own hazardous wastes you are responsible for clean-up due to accidents. Call the state hazardous waste management agency (See Appendix B) to find out what state regulations apply.

Please Print or Type
(Form designed for use on Elite (12 pitch) typewriter)

Form Approved OMB No. 2050-0039 Expires 9-30-91

| Uniform Hazardous Waste Manifest | 1. Generators US EPA No. | Manifest Document No. 5432A | 2. Page 1 of 1 | Information in the shaded areas is not required by federal law |
|---|---|---|---|---|

**GENERATOR**

**3. Generators Name and Mailing Address**
Jewelry Shop #1, 6565 Main SW
Albuquerque, NM 87115
4. Generator's Phone ( 505 ) 525-5555

A. State Manifest Document No.

B. State Generator's ID

**5. Transporter 1 Company Name**
We Haul-It-All

6. US EPA ID Number
WAD06532107469

C. State Transporter's ID

D. Transporter's Phone

**7. Transporter 2 Company Name**
We Haul-It-All Too

8. US EPA ID Number
ROX06432007269

E. State Transporter's ID

F. Transporter's Phone

**9. Designated Facility Name and Address**
WasteCare, Inc.
89 Old Alpine
Phoenix, AZ 53597-5589

10. US EPA ID Number
YUNA6532907769

G. State Facility's ID

H. Facility's Phone

| | 11. US DOT Description (Proper Shipping Name, Hazard Class, and ID No.) HM | | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | X | Waste Acetone, Flammable Liquid | 003 | DM | 01440 | P | |
| b. | X | Hazardous Waste Liquid NOS (trichlorotrifluoroethane) ORM-E NA 9189 (EPA F002) | 002 | DM | 00920 | P | |
| c. | | | | | | | |



J. Additional Descriptions for Waste Material Listed Above

K. Handling codes for Waste Listed Above

15. Special Handling Instructions and Additional Information

**16. Generators Certification:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transportation by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume of toxicity of waste generated to the degree I have determined to be economically practible and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

**TRANSPORTER**

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| 17. Transporter 1 Acknowledgement of Receipt of Materials | | | | |
| Printed/Typed Name | Signature | Month | Day | Year |
| 18. Transporter 2 Acknowledgement of Receipt of Materials | | | | |
| Printed/Typed Name | Signature | Month | Day | Year |
| 19. Discrepency Indication Space | | | | |

**FACILITY**

20. Facility Owner or Operator Certification of Receipt of hazardous materials covered by this manifest except as noted in item 19.

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| | | | | |

## Waste Manifest Notes:

**General:**

1. Check to see if the Manifest is current (see upper right corner for manifest type and date)
2. Do you need to fill out the state information? (shaded areas)

**Generator:**

1. Shaded areas - Some states require this information
2. #5 - Identify ALL transporters. Use a continuation sheet if necessary.
3. #9 - Name, address and ID No. of the TSDF (Treatment, Storage, Disposal Facility) scheduled to receive your waste material.
4. #11 -
   US DOT Descriptions
   Sequence of Information:

   1) Proper Shipping Name
   2) Hazard Class
   3) I.D. Number (UN or NA)

   * If the word waste is not part of the basic description, it must appear before the description as written in 49 CFR Section 172.101.

   * The technical and chemical group names may be entered in parentheses between the proper shipping name and the Hazard Class.

   * If the Proper Shipping Name for a hazardous substance does not identify the substance by name, the waste stream number must be entered, in parentheses, and in association with the DOT description.

5. #12 & #14 -
   Use the following codes for container types (section 12) and units of measure (section 14)

   Section 12: Types of Containers
   DM - Metal drums, barrels, kegs
   DW - Wooden drums, barrels, kegs
   DF - Fiberboard or plastic drums, barrels, kegs
   TP - Tanks Portable
   TT - Cargo Tanks (tank trucks)
   TC - Tank Cars
   DT - Dump Truck
   CY - Cylinders
   CM - Metal boxes, cartons, cases (including roll-offs)
   CW - Wooden boxes, cartons, cases
   CF - Fiberboard or plastic boxes, cartons, cases
   BA - Burlap, cloth, paper, or plastic bags

   Section 14: Units of Measure
   G - Gallons (liquid only)
   P - Pounds
   T - Tons
   Y - Cubic Yards
   L - Liters
   K - Kilograms
   M - Metric Tons (1000kg)
   N - Cubic Meters

## Transporter and Facility:

1. PRINT or TYPE the names
2. Must be DATED and SIGNED by ALL receiving parties

## Preparing for and Preventing Accidents:

Whenever you generate hazardous waste and store it on-site, you must take precautions and steps necessary to prevent sudden or accidental releases to the environment. This requires careful operation and maintenance of the facility to reduce the possibility of fire, explosion, or release of hazardous waste.

Your facility must have appropriate types of emergency communication and fire equipment for the kinds of waste handled at your site. You must also attempt to make arrangements with local fire, police, or hospital officials as needed to ensure that they will be able to respond to any potential emergencies that could arise. Some of the steps you may need to take to prepare for emergencies at your facility include:

Install and maintain emergency equipment such as alarms, a telephone or two-way portable radio, fire extinguishers (appropriate to your waste type), hoses, automatic sprinklers, or spray equipment that is immediately available to employees in case of an emergency.

Provide enough room for emergency equipment and response teams to get into any area of your facility in the event of an emergency.

Write to local fire, police, hospital officials, and state or local emergency response teams explaining the types of wastes you handle and ask for their cooperation and assistance in handling emergency situations.

Prepare an adequate emergency evacuation plan for your facility and employees.

Employees who are designated to handle hazardous waste or could be actively involved in cleanup operations must receive at least 8 hours of training in accordance with OSHA regulations.

### Planning for Emergencies:

A contingency plan attempts to look ahead and prepare for any accidents that could possibly occur. It can be thought of as a set of answers to a series of "what if" questions. For example: "What if there is a fire in the area where hazardous waste is stored?" or "What if I have a spill of hazardous waste or one of my containers leaks?" Emergency procedures are the steps you should follow if you have an emergency, that is, if one of the "contingencies" or "what ifs" occurs. While a specific written contingency plan is not required, it may be a good idea to make a list of these questions and answer them on paper. This also may be helpful in informing your employees about their responsibilities in the event of an emergency.

**If you have an emergency in your plant:**

1. In the event of a fire, call the fire department or attempt to extinguish it using the appropriate type of fire extinguisher.
2. In the event of a spill, contain the hazardous waste flow to the extent possible and notify the National Response Center. The Center operates a 24-hour toll free number: 800-424-8802. As soon as possible, clean up the hazardous waste and any contaminated materials or soil, and package in approved containers with proper labels.
3. In the event of a fire, explosion, or other release, immediately notify the National Response Center as required by Superfund regulations. (Superfund is the law that deals with the cleanup of spills and leaks of hazardous waste at abandoned hazardous waste sites.)

Emergency phone numbers and locations of emergency equipment must be posted near telephones and all employees must know proper waste handling and emergency procedures. You must appoint an employee to act as the primary emergency coordinator to ensure that emergency procedures are carried out in the event an emergency arises. The responsibilities of the emergency coordinator are generally:

The primary emergency coordinator must be on 24 hour call. It is recommended that the coordinator be on a personal paging system to meet this requirement;
Activate alarms/communication systems;
Make appropriate phone calls;
Arrange for cleanup and removal of the wastes.
Know where all MSDS and other material data is located.

The following is a sample emergency preparedness form which should be posted near phones and be available to all employees:

***Primary Emergency Coordinator:***

| Home Phone: | Office Phone: | Office: | Home Address |
|---|---|---|---|

***Alternate Emergency Coordinator:***

| Home Phone: | Office Phone: | Office: | Home Address |
|---|---|---|---|

***Local Emergency Numbers:***

| | | | |
|---|---|---|---|
| Fire Department/HazMat: | 911 | Hospital: | |
| Ambulance | 911 | Waste Water Treatment Plant: | 873-7004 |
| Poison Control | 843-2551 | LEPC: | 764-6353/6322 or 243-6601 |

***State Emergency Numbers:***

| | | | |
|---|---|---|---|
| Environment Dept. | 1-(505)841-9450 | Haz. Waste Mgt. Agency: | 1-(505)827-4308 |
| Emergency Response | 1-(505)827-9300 | | |

***Federal Emergency Numbers:***

| | | | |
|---|---|---|---|
| USEPA Reg. 6: | 1-(214)767-2600 | US Nat. Response Center: | 1-800-424-8802 |

It is important to avoid potential risks in this area. If you have a serious emergency and you have to call your local fire department or you have a spill that extends outside your plant or that could reach surface waters, immediately call the National Response Center (800-424-8802) and give them the information they request. If you didn't need to call, they will tell you so.

**REMEMBER:** Anyone who was supposed to call and does not is subject to a $10,000 FINE, A YEAR IN JAIL, OR BOTH. Any owner or manager of a business who fails to report a release may also have to pay for the entire cost of repairing any damage, even if the facility was not the single or main cause of the damage.

## Good Housekeeping and a safe environment:

The four most important things to remember about managing your wastes properly are:

1. Reduce the amount of your hazardous waste, don't mix hazardous with non-hazardous.
2. Conduct your own self-inspection, determine your hazardous and non-hazardous wastes and document the results. Why are non-hazardous wastes non-hazardous? Have you had TCLP studies done to verify the non-hazardous status where necessary?
3. Cooperate with state and local inspectors.

4. Call your local or state hazardous waste agency or the USEPA with questions.

Good hazardous waste management can be thought of simply as using "good housekeeping" practices such as: using and reusing materials as much as possible; recycling or reclaiming waste; treating waste to reduce its hazards; or reducing the amount of waste you generate. To reduce the amount of waste you generate:

Do not mix non-hazardous wastes with hazardous wastes. For example, if you put nonhazardous cleaning agents or rags in the same container as a hazardous solvent the entire contents become a hazardous waste.

Avoid mixing several different hazardous wastes. Doing so may make recycling very difficult, if not more expensive.

Avoid spills or leaks of hazardous products. The materials used to clean up such spills or leaks will also become hazardous. Make sure that original containers of hazardous products are completely empty before you throw them away. Use ALL the product.

Avoid using more of a hazardous product than you need. For example, use no more degreasing solvent or pesticide than you need to do the job. Do not throw away a container with unused solvent or pesticide in it.

Reducing your hazardous waste means saving money on raw materials and reducing the costs to your business for managing and disposing of your hazardous wastes. Another aspect of "good housekeeping" is cooperating with inspection agencies and using a visit by an inspector as an opportunity to identify and correct problems. Accompanying state or local inspectors on a tour of your facility will enable you to ask any questions you may have and receive advice on more effective ways of handling your hazardous products and wastes. In addition, guiding the inspectors through your property and explaining your operations may help them to be more sensitive to the particular problems or needs of your business. Inspectors can also serve as a valuable source of information on record keeping, manifests, and safety requirements specific to your facility.

The best way to prepare for an inspector visit is to conduct your own self assessment. This appendix serves as a guide to developing a self assessment checklist. Make sure you can answer correctly the following questions, and make sure you have met or can meet the requirements of this appendix.

### Answer the Following Questions:

Do you have some documentation on the amounts and kinds of hazardous waste you generate and on how you determined that they are hazardous?

Do you have a U.S. EPA Identification Number?

Do you ship waste off-site? If so, by which hauler and to which designated hazardous waste management facility?

Do you have copies of manifests used to ship your hazardous waste off-site? Are they filled out correctly? Have they been signed by the designated facility?

Is your hazardous waste stored in the proper containers?

Are the containers properly dated and marked?

Have you designated an emergency coordinator?

Have you posted emergency telephone numbers and the location of emergency equipment?

Are your employees thoroughly familiar with proper waste handling and emergency procedures?

Do you understand when you may need to contact the National Response Center?

**Remember:** If you are still uncertain about how to handle your hazardous waste, or have any questions concerning the rules for 100-1000 kg/mo generators, there are several sources listed in Appendix B that you can contact for answers. Taking responsibility for proper handling of hazardous waste will not only ensure a safer environment and work place for everyone, but will save your business money. So write or call your local or state hazardous waste management agency or the U.S. EPA with your questions today.